AMENDMENTS TO THE CLAIMS

1. (original) A wrought product comprising an AlCuMg type alloy of the following composition (% by weight):

Cu 3.80 - 4.30; Mg 1.25 - 1.45; Mn 0.20 - 0.50; Zn 0.40 - 1.30; Fe < 0.15; Si < 0.15; Zr ≤ 0.05; Ag < 0.01

other elements < 0.05 each and < 0.15 total,

remainder Al.

2. (original) Product according to claim 1, wherein Cu 4.05 – 4.30.

3. (original) Product according to claim 1, wherein Mg 1.28 – 1.42.

4. (original) Product as claimed in claim 1, wherein Mn 0.30 – 0.50.

5. (original) Product as claimed in claim 1, wherein Zn 0.50 – 1.10.

6. (original) Product as claimed in claim 1, wherein Fe < 0.10.

7. (original) Product as claimed in claim 1, wherein Si < 0.10.

8. (original) Product as claimed in claim 1, wherein Cu < 4.20; Mg < 1.38; Mn < 0.42; and Zn ≥ (1.2Cu – 0.3Mg + 0.3Mn – 3.75).

9. (original) Product as claimed in claim 1, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 0.5% and 15%.

10. (original) Product as claimed in claim 1, wherein said product is a sheet or plate between 1 and 16 mm thick.

11. (original) Product as claimed in claim 1, wherein said sheet or plate is clad on at least one face thereof with an alloy in the 1xxx series.

12. (original) Product as claimed in claim 1, having an ultimate tensile strength in the L and/or TL direction that is more than 430 MPa.

13. (original) Product as claimed in claim 1, having a yield stress in the L and/or TL direction that is more than 300 MPa.

14. (original) Product as claimed in claim 1, having an elongation at failure in the L and/or TL direction that is greater than 19%.

15. (original) Product as claimed in claim 1, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 165 MPa$\sqrt{m}$ in the T-L and L-T directions.

16. (original) Product as claimed in claim 1, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 180 MPa$\sqrt{m}$ in the L-T direction.

17. (original) Product as claimed in claim 1, having a crack propagation rate da/dN determined according to ASTM standard E 647 in the T-L or the L-T direction for a load ratio R = 0.1 and a value ΔK of 50 MPa$\sqrt{m}$, that is less than 2.5×10^{-2} mm/cycle.

18. (original) A clad sheet or plate as claimed in claim 1, wherein the galvanic corrosion current is smaller than 4 $\mu A/cm^2$ for an exposure of a riveted assembly to a corrosion test up to 200 hours, in which the cladding alloy is placed in a cell containing a solution of $AlCl_3$ (0.02 M, deaerated by nitrogen bubbling) and the core alloy placed in a cell containing a solution of NaCl (0.02 M, aerated).

19. (original) Clad metal sheet or plate as claimed in claim 18, wherein said galvanic corrosion current is less than 2.5 $\mu A/cm^2$.

20. (original) Aircraft structural member made from at least one product as claimed in claim 1.

21. (original) Structural element as claimed in claim 20, wherein said structural member is a member of the skin of a fuselage.

22. (withdrawn) Method for the production of a wrought product according to claim 1, comprising:

(a) casting a rolling, forging or extrusion ingot,

(b) homogenizing said ingot between 450 and 500 °C,

(c) hot transforming said ingot by extruding, rolling or forging to form an intermediate product,

(d) optionally cold transforming said intermediate product,

(e) solution heat treating said intermediate product at a temperature of between 480 and 505 °C,

(f) quenching,

(g) cold working with a permanent set comprised between 0.5 and 15 %.

23. (withdrawn) Method according to claim 22, wherein the cold working is done with a permanent set comprised between 1 and 5%.

24. (withdrawn) A method according to claim 22, wherein the permanent set is between 1.5 and 3.5 %.

25. (original) A product according to claim 17, wherein the crack propagation is less than 2.0×10^{-2} mm/cycle.

26. (original) Product as claimed in claim 1, having an elongation at failure in the L and/or TL direction that is greater than 20%.

27. (original) Product as claimed in claim 1, having a yield stress in the L and/or TL direction that is more than 320 MPa. 12. Product as claimed in claim 1, having an ultimate tensile strength in the L and/or TL direction that is more than 440 MPa.

28. (original) Product as claimed in claim 1, wherein said sheet or plate is clad on at least one face thereof with an alloy selected from the group consisting of the 1050, 1070, 1300 and 1145 alloys.

29. (original) Product as claimed in claim 1, wherein Mn 0.35 – 0.48.

30. (original) Product as claimed in claim 1, wherein Zn 0.50 – 0.70.

31. (original) Product as claimed in claim 1, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 1% and 5%.

32. (original) Product as claimed in claim 31, wherein said permanent set is between 1.5% and 3.5%.

33. (original) A product according to claim 1 that is rolled, extruded and/or forged.

34. (withdrawn) A clad metal plate or sheet wherein, when subjected to a corrosion test of EP 0 623 462 that is conducted by measuring current flow, during said test, said current reaches a peak after about 55 hours and maintains substantially the same current for 200 h.

35. (withdrawn) A clad metal plate or sheet wherein, when subjected to a corrosion test of EP 0 623 462 that is conducted by measuring current flow, during said test, said current reaches a peak after about 55 hours and then maintains substantially the same current for 15 days.

36. (original) A wrought product comprising an AlCuMg alloy wherein Cu < 4.20; Mg < 1.38; Mn < 0.42; and Zn ≥ (1.2Cu – 0.3Mg + 0.3Mn – 3.75).

37. (original) A wrought product of claim 36, wherein :
Cu 3.80 - 4.30; Mg 1.25 - 1.45; Mn 0.20 - 0.50; Zn 0.40 - 1.30; Fe < 0.15; Si < 0.15; Zr ≤ 0.05; Ag < 0.01
other elements < 0.05 each and < 0.15 total,
remainder Al.

38. (original) Product according to claim 36, wherein Cu 4.05 – 4.30.

39. (original) Product according to claim 36, wherein Mg 1.28 – 1.42.

40. (original) Product as claimed in claim 36, wherein Mn 0.30 – 0.50.

41. (original) Product as claimed in claim 36, wherein Zn 0.50 – 1.10.

42. (original) Product as claimed in claim 36, wherein Fe < 0.10.

43. (original) Product as claimed in claim 36, wherein Si < 0.10.

44. (original) Product as claimed in claim 36, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 0.5% and 15%.

45. (original) Product as claimed in claim 36, wherein said product is a sheet or plate between 1 and 16 mm thick.

46. (original) Product as claimed in claim 36, wherein said sheet or plate is clad on at least one face thereof with an alloy in the 1xxx series.

47. (original) Product as claimed in claim 36, having an ultimate tensile strength in the L and/or TL direction that is more than 430 MPa.

48. (original) Product as claimed in claim 36, having a yield stress in the L and/or TL direction that is more than 300 MPa.

49. (original) Product as claimed in claim 36, having an elongation at failure in the L and/or TL direction that is greater than 19%.

50. (original) Product as claimed in claim 36, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 165 MPa$\sqrt{m}$ in the T-L and L-T directions.

51. (original) Product as claimed in claim 36, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 180 MPa$\sqrt{m}$ in the L-T direction.

52. (original) Product as claimed in claim 36, having a crack propagation rate da/dN determined according to ASTM standard E 647 in the T-L or the L-T direction for a load ratio R = 0.1 and a value ΔK of 50 MPa$\sqrt{m}$, that is less than 2.5×10^{-2} mm/cycle.

53. (currently amended) A clad sheet or plate as claimed in claim 36, wherein the galvanic corrosion current is smaller than 4 $\mu A/cm^2$ for an exposure of a riveted assembly to a corrosion test up to 200 hours, in which the cladding alloy is placed in a cell containing a solution of $AlCl_3$

(0.02 M, deaerated by nitrogen bubbling)[[)]] and the core alloy placed in a cell containing a solution of NaCl (0.02 M, aerated).

54. (original) Clad metal sheet or plate as claimed in claim 53, wherein said galvanic corrosion current is less than 2.5 $\mu A/cm^2$.

55. (original) Aircraft structural member made from at least one product as claimed in claim 36.

56. (original) Structural element as claimed in claim 55, wherein said structural member is a member of the skin of a fuselage.

57. (withdrawn) Method for the production of a wrought product according to claim 36, comprising:

(a) casting a rolling, forging or extrusion ingot,

(b) homogenizing said ingot between 450 and 500 °C,

(c) hot transforming said ingot by extruding, rolling or forging to form an intermediate product,

(d) optionally cold transforming said intermediate product,

(e) solution heat treating said intermediate product at a temperature of between 480 and 505 °C,

(f) quenching,

(g) cold working with a permanent set comprised between 0.5 and 15 %.

58. (withdrawn) Method according to claim 57, wherein the cold working is done with a permanent set between 1 and 5%.

59. (withdrawn) A method according to claim 57, wherein the permanent set is between 1.5 and 3.5%.

60. (original) A product according to claim 52, wherein the crack propagation is less than 2.0×10^{-2} mm/cycle.

61. (original) Product as claimed in claim 36, having an elongation at failure in the L and/or TL direction that is greater than 20%.

62. (original) Product as claimed in claim 36, having a yield stress in the L and/or TL direction that is more than 320 MPa.

63. (original) Product as claimed in claim 36, having an ultimate tensile strength in the L and/or TL direction that is more than 440 MPa.

64. (original) Product as claimed in claim 36, wherein said sheet or plate is clad on at least one face thereof with an alloy selected from the group consisting of the 1050, 1070, 1300 and 1145 alloys.

65. (original) Product as claimed in claim 36, wherein Mn 0.35 – 0.48.

66. (original) Product as claimed in claim 36, wherein Zn 0.50 – 0.70.

67. (original) Product as claimed in claim 36, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 1% and 5%.

68. (original) Product as claimed in claim 67, wherein said permanent set is between 1.5% and 3.5%.

69. (original) A product according to claim 36 that is rolled, extruded and/or forged.

70. (original) A clad metal plate or sheet of claim 36 wherein, when subjected to a corrosion test of EP 0 623 462 that is conducted by measuring current flow, during said test, said current reaches a peak after about 55 hours and maintains substantially the same current for 200 h.

71. (original) A clad metal plate or sheet of claim 36 wherein, when subjected to a corrosion test of EP 0 623 462 that is conducted by measuring current flow, during said test, said current reaches a peak after about 55 hours and then maintains substantially the same current for 15 days.

72. (currently amended) A clad sheet or plate of claim 1 [[35]] that is substantially free of Zr and Ag.

73. (currently amended) A clad sheet or plate of claim 2 [[34]] that is substantially free of Zr and Ag.

74. (currently amended) A clad sheet or plate of claim 72 [[35]] wherein an alloy used to form said sheet has Fe and Si >0.06%.

75. (currently amended) A clad sheet or plate of claim 73 [[34]] wherein an alloy used to form said sheet has Fe and Si >0.06%.

76. (original) A sheet or plate formed of an AlCuMg type alloy and having a Zn content >about 0.25%, wherein said sheet or plate possesses substantially equivalent mechanical strength and formability but better damage tolerance and corrosion resistance than a sheet or plate formed of an alloy with less than 0.25% Zn.

77. (original) A sheet or plate of claim 76, wherein said alloy with less than 0.25% Zn is a 2xxx alloy.

78. (original) A sheet or plate of claim 76, that is a wrought product comprising an AlCuMg type alloy of the following composition (% by weight):
Cu 3.80 - 4.30; Mg 1.25 - 1.45; Mn 0.20 - 0.50; Zn 0.40 - 1.30; Fe < 0.15; Si < 0.15; Zr ≤ 0.05; Ag < 0.01
other elements < 0.05 each and < 0.15 total,
remainder Al.

79. (original) Product according to claim 78, wherein Cu 4.05 – 4.30.

80. (original) Product according to claim 78, wherein Mg 1.28 – 1.42.

81. (original) Product as claimed in claim 78, wherein Mn 0.30 – 0.50.

82. (original) Product as claimed in claim 78, wherein Zn 0.50 – 1.10.

83. (original) Product as claimed in claim 78, wherein Fe < 0.10.

84. (original) Product as claimed in claim 78, wherein Si < 0.10.

85. (original) A sheet or plate according to claim 76, wherein Cu < 4.20; Mg< 1.38; Mn < 0.42; and Zn ≥ (1.2Cu – 0.3Mg + 0.3Mn – 3.75).

86. (original) Product as claimed in claim 78, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 0.5% and 15%.

87. (original) Product as claimed in claim 78, wherein said product is a sheet or plate between 1 and 16 mm thick.

88. (original) Product as claimed in claim 78, wherein said sheet or plate is clad on at least one face thereof with an alloy in the 1xxx series.

89. (original) Product as claimed in claim 78, having an ultimate tensile strength in the L and/or TL direction that is more than 430 MPa.

90. (original) Product as claimed in claim 78, having a yield stress in the L and/or TL direction that is more than 300 MPa.

91. (original) Product as claimed in claim 78, having an elongation at failure in the L and/or TL direction that is greater than 19%.

92. (original) Product as claimed in claim 78, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 165 MPa$\sqrt{m}$ in the T-L and L-T directions.

93. (original) Product as claimed in claim 78, having a damage tolerance Kr calculated from a R curve obtained according to ASTM E 561 for a value Δa_{eff} equal to 60 mm that is greater than 180 MPa$\sqrt{m}$ in the L-T direction.

94. (original) Product as claimed in claim 78, wherein its crack propagation rate da/dN determined according to ASTM standard E 647 in the T-L or the L-T direction for a load ratio R = 0.1 and a value ΔK of 50 MPa$\sqrt{m}$, is less than 2.5×10^{-2} mm/cycle.

95. (original) A clad sheet or plate as claimed in claim 78, wherein the galvanic corrosion current is smaller than 4 $\mu A/cm^2$ for an exposure of a riveted assembly to a corrosion test up to 200 hours, in which the cladding alloy is placed in a cell containing a solution of $AlCl_3$ (0.02 M, deaerated by nitrogen bubbling)) and the core alloy placed in a cell containing a solution of NaCl (0.02 M, aerated).

96. (original) Clad metal sheet or plate as claimed in claim 95, wherein said galvanic corrosion current is less than 2.5 $\mu A/cm^2$.

97. (original) Aircraft structural member made from at least one product as claimed in claim 78.

98. (original) Structural element as claimed in claim 97, wherein said structural member is a member of the skin of a fuselage.

99. (withdrawn) Method for the production of a wrought product according to claim 78, comprising:

(h) casting a rolling, forging or extrusion ingot,

(i) homogenizing said ingot between 450 and 500 °C,

(j) hot transforming said ingot by extruding, rolling or forging to form an intermediate product,

(k) optionally cold transforming said intermediate product,

(l) solution heat treating said intermediate product at a temperature of between 480 and 505 °C,

(m) quenching,

(n) cold working with a permanent set comprised between 0.5 and 15 %.

100. (withdrawn) Method according to claim 99, wherein the cold working is done with a permanent set comprised between 1 and 5%.

101. (withdrawn) A method according to claim 99, wherein the permanent set is between 1.5 and 3.5 %.

102. (original) Product as claimed in claim 78, having an elongation at failure in the L and/or TL direction that is greater than 20%.

103. (original) Product as claimed in claim 78, having a yield stress in the L and/or TL direction that is more than 320 MPa.

104. (original) Product as claimed in claim 78, having an ultimate tensile strength in the L and/or TL direction that is more than 440 MPa.

105. (original) Product as claimed in claim 78, wherein said sheet or plate is clad on at least one face thereof with an alloy selected from the group consisting of the 1050, 1070, 1300 and 1145 alloys.

106. (original) Product as claimed in claim 78, wherein Mn 0.35 – 0.48.

107. (original) Product as claimed in claim 78, wherein Zn 0.50 – 0.70.

108. (original) Product as claimed in claim 78, wherein said product has been treated with a solution heat treatment, quenching and cold strain-hardening, and possesses a permanent set between 1% and 5%.

109. (original) Product as claimed in claim 108, wherein said permanent set is between 1.5% and 3.5%.

110. (original) A product according to claim 1 that is rolled, extruded and/or forged.

111. (new) A sheet or plate of claim 1 that is substantially recrystallized and has an equiaxed grain structure.